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EXAMINER

DINH, TIEN QUANG

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3644

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,590

Applicant(s)

RUFF ET AL.

Examiner

Tien Dinh

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-18 is/are allowed.
- 6) ☒ Claim(s) 1-14, 19-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-11, 13, and 21-27 are rejected under 35 U.S.C. 102(a) as being anticipated by Kubota.

Regarding claims 1 and 7, Kubota discloses (fig. 4) a wiring system comprising a flexible guide (34, 35, 44) adapted for connection between a first device (not shown) and a second device (fig. 8, item 50) wherein the flexible guide limits communication line movement to substantially a two dimensional plane. Note that the wiring system is disclosed as applicable to a vehicle instrument panel, and would therefore be applicable to any vehicle such as an automobile, truck, bus, aircraft, etc. Further, the statements of the claims being drawn to "an avionic wiring system" or "an avionics instrument mounting system" are considered statements of intended or desired use, and these elements of the claims, as well as other statements of intended use, do not serve to patentably distinguish the claimed structure over that of the reference.

Note also that connection to a second device is inherent in the disclosure of Kubota, since it is obvious that the wires are used to connect two devices (e.g., if the second device 50 were a clock, the first device would be the vehicle's battery). As to limitations that are considered to be inherent in a reference, note the case law of In re Ludtke, 169 USPQ 563, In re Swinehart, 169 USPQ 226, In re Fitzgerald, 205 USPQ 594, In re Best et al., 195 USPQ 430, and In re Brown, 173 USPQ 685, 688.

Regarding claims 2 and 9, Kubota discloses a wiring system wherein the two dimensional plane is oriented vertically.

Regarding claims 3 and 10, Kubota discloses a wiring system wherein the flexible guide includes an "S" shape when the guide is in a retracted state. Regarding claims 4 and 13, Kubota discloses a wiring system wherein the flexible guide includes a number (3) of jointed segments (34, 35, 44).

Regarding claim 5, Kubota discloses a wiring system wherein the flexible guide frame (30) adapted for mounting to a mounting frame (10).

Regarding claim 6, Kubota discloses a wiring system further including a stop (34a) attached to the flexible guide frame.

Regarding claim 11, Kubota discloses a wiring system wherein the flexible guide includes a "C" shape when the guide is in a retracted state. Note that while the guide would normally be in an "S" shape, the guide is flexible and the end piece (44) could be rotated back on the hinge to form a "C" shape when the guide is retracted. Regarding claim 21, the claimed method of mounting an avionics instrument system is inherent in the disclosure of Kubota, as discussed above regarding claims 1 and 7.

Regarding claim 22, the wiring guide of Kubota would limit movement to a vertical two dimensional plane, as discussed above regarding claims 2-3. Regarding claim 24, the flexible guide of Kubota includes a number of jointed segments.

Regarding claims 25-27, the claimed method of manufacturing and mounting an avionics instrument system is inherent in the disclosure of Kubota and discussed above regarding claims 1-3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 12, 14, 19, 20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota in view of USPN 4,493,146 granted to Cronin.

Regarding claim 8, use of the wiring system of Kubota to connect an avionics module and display unit (i.e. a display unit on the face of the instrument panel connected to an avionics module), and as taught by Cronin (fig. 2, display unit 18 is connected to an avionics module, not shown) is typical and well known in the aviation art, and thus would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 12, Cronin teaches the use of a generic display device (18). A flat panel screen is a display device and thus would have been an obvious variation. Regarding claim 14, Kubota discloses a mounting and wiring system wherein the flexible guide includes a stop (fig. 7, item 46) limiting the flexible guide to a depth within the mounting frame. Thus, use of the mounting and wiring system of Kubota to mount an electronic module and connect the module to a display unit, as is typical and well known in the aviation art as taught by Cronin, would have been obvious to one of ordinary skill in the art at the time of the invention.

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Regarding claim 19, Kubota discloses a device for use in a vehicle instrument panel. Since an aircraft is a vehicle, application to an aircraft cockpit would be included in the disclosure.

Regarding claim 20, use of the wiring system of Kubota to connect an avionics module and display unit (i.e. a display unit on the face of the instrument panel connected to an avionics module), and as taught by Cronin (fig. 2, display unit 18 is connected to an avionics module, not shown) is typical and well known in the aviation art, and thus would have been obvious. Use of an avionics module having a motherboard, would have been an obvious variation.

Regarding claim 23, Cronin teaches the use of a generic display device (18). A flat panel screen is a display device and thus would have been an obvious variation.

Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,736,910 granted to O'Quinn et al., in view of Kubota.

Regarding claim 28, O'Quinn et al. disclose (see abstract, col. 8, lines 25-30, etc.) an aircraft with an avionics instrument system comprising: an avionic module adapted to process avionic data; a separate display unit adapted to display at least a portion of the avionic data and coupled to the avionic module by at least one communication line. O'Quinn et al do not disclose a display unit moveable from a first location adjacent the module to a second location apart from the module or a flexible guide. Kubota teaches a flexible guide (fig. 4) which would allow connection of a display unit and movement of the display unit from a first location adjacent the module to a second location apart from the module in order to facilitate connection of the wiring to the display unit.

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Regarding claim 29, O'Quinn et al. disclose a number of modules coupled to one or more display unit(s).

Regarding claim 30, O'Quinn et al. disclose the use of a generic display device (col. 8, lines 29-30). A flat panel screen is a display device and thus would have been an obvious variation.

Allowable Subject Matter

Claims 15-18 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 703-308-2798. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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